

"The Spanish name should be spelt '*Curricinga*,' nec *Curricunga*.

"I was wrong in calling it 'the road to Guaqua Pichincha'; it is merely the track or tracks made by the 'snow-carriers,' who bring down that article daily, and supply the inhabitants of Quito with the luxury they please to name '*ice*.' It requires considerable experience to follow these paths, in safety, through the '*paja*' or long grass with which the Paramo is clothed.

"All that I remember, beyond what is already published in the Proceedings of the Zoological Society, is having noticed for the first time a few pairs walking in the grass, amongst the cattle, on the table-lands to the south of Quito, when *en route* for Babahoyo in June 1859."

There appear to be, therefore, three nearly allied species of *Milvago*, forming the subsection *Phalcobænus*, and occupying different areas in South America.

1. *M. CARUNCULATUS*. *Pectore nigro, albo guttato*. Ex mont. Novæ Granadæ et reipubl. Equatorialis.

2. *M. MEGALOPTERUS* (*Aquila megaloptera*, Meyen: *Phalcobænus montanus*, Lafr. et d'Orb.). *Pectore nigro, immaculato*. 199
Ex mont. Peruvix et Bolivix.

3. *M. ALBOGULARIS*, Gould (Darw. Zool. Beagle, pl. 1. p. 18). *Gutturæ et pectore albis*. Ex Patagonia.

III.—*Notes on the Ornithology of Hongkong, Macao, and Canton, made during the latter end of February, March, April, and the beginning of May, 1860.* By ROBERT SWINHOE, of H. B. M.'s Consular Service.

HONGKONG is set down as distant 280 miles by sea from Amoy, and, being in latitude $22^{\circ} 15'$, falls well within the tropics. We ought therefore naturally to expect more interesting feathered forms than appear in the subjoined list; yet, if you exclude the *Micronisus gabar* (which may also occasionally be found at Amoy) and the large *Ketupa*, no bird came within my observation about Hongkong and its neighbouring main which does not occur somewhere in the neighbourhood of Amoy.

At Macao I fell in with two species I had not seen before;

nly one of these I procured, which I have marked *Larvivora* sp. ?.

Canton, with its fine old trees towering everywhere throughout the town, and its well-wooded surrounding country, literally swarms with birds, and I can safely assert that no place on this coast equals it for the number and variety of its Avifauna. If I had spent a few months there instead of a week or two, I could have swelled my collection into colossal proportions. Canton is distant about ninety-eight miles by river from Hongkong, and is in the same latitude as Calcutta.

1. PANDION HALIAËTUS (Linn.). Osprey.

As we steamed out of Amoy, this bird was seen soaring over the bay, and at the entrance to Swatow it was seen again, seated on a fishing-stake. In Hongkong I have often watched the Ospreys gradually ascending into the air in large sweeping circles, when their rounded tails and peculiar upward inclination of the wings at once distinguish them from the Kites which abound in the harbour. Pigeons before alighting have this same peculiarity of inclining the wings upwards; and Swifts (*Cypselus affinis*, Gray) practise the same as they dart and gambol through the air before roosting, uttering the while a quick succession of sharp notes. When the Osprey is seen flying overland with slow heavy flaps, he has a very *Buteonine* aspect.

I was told that a large *Sea-Eagle* had been occasionally seen at Hongkong, but, from his wariness and inaccessibility, no one had succeeded in getting a shot at him. On one occasion, in Amoy, I saw a very large bird of prey sitting in a tree, which I took to be a *Sea-Eagle*. He was at least 200 yards off, yet took alarm at my appearance.

- | | |
|--|-----------------------------------|
| 2. FALCO PEREGRINUS, Linn. | } Both observed near
Hongkong. |
| 3. TINNUNCULUS ALAUDARIUS (Briss.). | |
| 4. BUTEO JAPONICUS, Bp.* Japanese Buzzard. | |

A pair frequented the Happy Valley, Hongkong. I have seen them early in the morning, pursuing each other with loud screams.

* Perhaps rather paler than *B. vulgaris*, but hardly specifically distinct, according to Mr. Blyth (J. A. S. B. xxx. p. 95).—P. L. S.

5. *MILVUS GOVINDA*, Sykes*. Brahminy Kite.

Common.

6. *MICRONISUS* — ?†. Small Blue Sparrow-Hawk.

We were watching some Swallows (*H. gutturalis*) sporting over a pond, when suddenly a small short-winged Hawk appeared among them, and would certainly have caught one had not one of my comrades brought him down with a broken wing. The little fellow was much excited, and fought hard with his bill and claws for life. He was a much handsomer bird than *M. badius*, though about the same size; blue-grey above; beneath banded with dark undulating lines; the flanks and belly deeply washed with buff ochre. The bill was blue-black; the cere, iris, and legs golden yellow, with black claws. The specimen was accidentally lost, being served up at table by the Chinese servant in mistake for a pigeon.

This same species is by no means uncommon in the neighbourhood of Hongkong, and you often see them even over the streets of Victoria, poising with almost motionless wing, while the tail is continually opened and shut like a fan. The length of tail and shortness of wing at once distinguish this bird from the Wind-hover or Kestrel, which species, so common at Amoy, seldom fell under my notice here. At Canton, several of these small Hawks were nesting in a grove of pines. The nests were small and cup-shaped, and placed high up, near the tree top. I was unable to procure either the eggs or young, nor did I succeed in securing a second specimen of the mature bird.

7. *ATHENE* — ?†.

A small brown Owl, with transverse yellowish bars and spots. This bird was brought to me alive by a Chinese at Canton, and

* Mr. Blyth (J. A. S. B. xxx. p. 95) seems to consider the Chinese Kite, *Milvus melanotis* of the 'Fauna Japonica,' as distinct; but Mr. Gurney informs me that his Chinese specimens are not different from *M. govinda* of India.—P. L. S.

† This is probably *Micronisus soloënsis* (Horsf.).—P. L. S.

† This *Athene* seems to be *Noctua cuculoides*, Vigors (Gould's Cent. pl. 4), already recognized by Blyth (Cat. Mus. As. Soc. p. 39) as occurring in Chusan.—P. L. S.

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+ 2148

1863
213

is markedly smaller than birds similarly coloured received from Foochow. The native name is *Ning-long-chay*. I find that the bird procured, which I forward for Mr. Selater's examination, is a mature specimen; and it therefore appears that either this species has a second year's moult, when it loses all the yellowish bands and markings, or that I have confounded two species under one denomination.

I extract the notes in my journal made on the fresh mature male above mentioned:—Bill greenish or dusky yellow. Iris clear golden king's-yellow. Legs chrome-yellow, with stiff bristles; claws pale yellowish at the base and brown towards the tips. Crura of furculum only ossified for about one-half of their length, and joined by a cartilaginous arch. Tibial tendons very rigid. Testicles not large, somewhat kidney-shaped, and yellowish. Proventriculus $\frac{6}{8}$ in. across; gizzard round and flattened, flanked on each side with a strong radiating muscle, about $1\frac{2}{8}$ in. in diameter, and lined inside with a fixed rugose cuticle. Intestines 16 inches long: cæca situate about $1\frac{1}{8}$ in. from anus; right cæcum $2\frac{2}{8}$, left 2 in. in length, both enlarging at their ends into black, semitransparent bulbs.

8. OTUS BRACHYOTUS (Gm.). Cantonese, "*Maou taou ying*" (Cat's-head Hawk).

This tawny Owl, with black spots and well-defined facial disc, was also brought alive to me in Canton. It is a species I have never before met with in China. Length $14\frac{1}{2}$ in.; wing 18 in. from curvature; tail 6. Bill black, with a pale tip. Iris bright golden yellow. Legs and feet covered with ochreous feathers, with the ends of the toes naked and of a pale blackish flesh-colour; claws sharp and blackish brown. Tibial tendons very rigid. Testicles like two small white eggs, placed with their ends pointing in different directions. Proventriculus 1 in. in length by $\frac{5\frac{1}{2}}{8}$ in breadth, granulated, and contracting somewhat at the mouth of the gizzard, which is roundish, about 1 in. in diameter, soft and flabby, lined with a fixed network-furrowed cuticle. The stomach contained a thick yellow juice and a few *fish-bones*. Intestines $18\frac{1}{2}$ in. long: cæca about 1 in. from anus; left cæcum $2\frac{6}{8}$, right $2\frac{3}{8}$ in. in length, the first bulging much more at the end than the second.

9. *KETUPA CEYLONENSIS* (Gm.)*. Crab Owl.

This magnificent Horned Owl, so like *Bubo maximus*, but at once distinguishable from that bird by the naked tarsi, is a constant tenant of the dark rocky ravines of Hongkong. The European cemetery in the Happy Valley is separated from the race-course by a broad road, and bounded in the front by a high wall with a central gateway. At the rear of this enclosure, which abounds in graceful tombs and funereal trees, rises a high hill, well-wooded, and cleft by a ravine tangled over by most luxuriant vegetation. In this lovely spot are found some of the choicest ferns and plants for which Hongkong is justly celebrated. Happening to pass one day, after I had stood enjoying the glorious view, I rambled up a narrow path, gun in hand. A Bulbul flew past me, and then another; and, as they perched within gunshot on a bush, I fired at them, when, to my astonishment, from under a gigantic black rock which rested on a smaller one, thus forming a natural cave, out flew a great Owl, and alighted on a branch close above me, with raised crest and ruffled feathers, evidently much bewildered and startled by the report of the gun. He was not, however, more astonished than myself, and by the time I had recovered myself he had also recovered himself, and, seeing me standing near, made off to the other side of the hill. I saw him settle on a tree, and thinking that an Owl by day was an easy prey, I pursued. But his eyes were too good; I could not get near him. I thereupon returned to his roost, and found, by the feathers and old casts, that the ledge underneath the rock must have been long tenanted. But what surprised me most was to find that the casts consisted chiefly of morsels of crab-shells and claws, together with a few bones of some small murine animals. Two days afterwards I again put the Owl out of the same haunt, but somehow managed to miss him.

* Certainly this species, and not *K. javanica*, as supposed by Mr. Swinhoe. Mr. Swinhoe speaks of the iris of *Ketupa ceylonensis* as "orange." I am informed by Mr. J. H. Gurney, that, in a specimen which was in the Zoological Society's Gardens some years since, the irides were of a very bright clear and pure yellow, without any tint of orange. It would appear therefore that the colouring of the irides in this species varies as it does in *Bubo maximus*, the very old individuals of which have much redder irides than the young ones.—P. L. S.

The shot alarmed him ; he never returned. Residents assure me that this bird is of frequent occurrence there, and that at night-time they may often be seen, seated on the tops of the houses facing the harbour. From the casts and excrement being frequently met with, I should certainly imagine that they were pretty abundant.

On my return from Macao I was fortunate enough to procure the specimen that I send herewith. It was in this wise. Mr. Wilford (the botanist sent out by Sir William Hooker) was out with me for a ramble in the neighbourhood of Jardine, Matheson and Co.'s grounds, close to a ravine, where a lot of small Chinese boys had gathered round us to see our sport. They pointed to some Kites that were diving at one another some distance over our heads, and for the amusement of the small boys, I fired at them twice. The shot must have tickled them, for they dropped the bone of contention, a putrid duck's head. But the report of the discharges reverberating along the ravine startled a dozing *Ketupa*, and out he came from his roost, and settled on a rock a long way up the hill. He flew out so quietly that we should probably not have observed him had it not been for the Kites, who soon spied him, and kept hovering over him and flying down at him. Not enjoying their indignities, and observing that all near was pretty safe, the Owl quietly dropped under cover, as he evidently fancied, unobserved by us. Upon this I rushed up the hill, and got a good position on a large rock above the spot where he had sunk to rest, and left my comrade and his noisy juvenile Celestials to follow. As these clambered up the hill, they chatted and laughed, and made a great noise. The Owl, finding them too near, bounced out, and flapped as hard as he could up the ravine, past the rock on which I was sitting, whence I got an easy shot at him, and tumbled him over. The little boys soon scrambled after him, and drew out the magnificent fellow. I was hitherto under the impression that he was *Bubo maximus*, which I have met with at Amoy; but imagine my joy, when, by the naked tarsus, I discovered a totally distinct bird.

He measured $21\frac{1}{2}$ in. in length; wing from flexure 16 in.; expanse about 3 feet 9 inches. Tail $7\frac{1}{2}$ in., somewhat graduated

and rounded, the outermost feathers being about 1 in. shorter than the central; the 4th and 5th remiges nearly equal, and longest in the wing. Eye about 1 in. in diameter; iris bright orange-yellow; skin round the eye broad, and purplish brown. Bill pale dingy greenish yellow, blackish on the apical half of the upper mandible, but not so at the tip. Inside of mouth pale fleshy king's-yellow. Tongue broad, fleshy, and notched at the tip. Legs of a dusky yellow, covered with small hexagonal scales, and a few broad scutella at the end of the toes; the soles rough, and covered with pointed asperities; outer toe reversible; claws bluish black, with pale yellowish bases, not much curved, and very blunt from use. Ear oval, $\frac{6}{8}$ in. in length, exposing the internal aperture in the half farthest from the eye. Feathery horns not very large or prominent.

The œsophagus starts from the glottis very wide, gradually narrowing to $\frac{4}{8}$ in., then for $1\frac{1}{2}$ in. becoming only $\frac{3}{8}$ in. in width. The proventriculus follows (length $1\frac{1}{2}$ in., largest diameter $\frac{5}{8}$): gizzard $1\frac{1}{2}$ in. long, somewhat conical, thick and hard; inside lining thick and yellow, with broad rugæ; empty. Cæca situated $2\frac{1}{2}$ in. from anus; right cæcum $4\frac{3}{8}$, left $3\frac{1}{2}$ in. in length, both bulging at their extremities into large sacs. Intestine *in toto* 44 inches long.

10. Scops — ?*. Cantonese, “*Se-chee-ying*.”

This pretty Horned Owl was brought to me alive at Canton, and, from the bareness of its breast and belly, had evidently been caught in the nest. It was very tame, and used to afford amusement to spectators by the odd way in which it lowered its head, swinging to and fro with expanded wing and ruffled feathers, while its disproportionately large dark eyes glared at the finger pointed towards it, and the bill continually snapped. In the day-time, when undisturbed, it remained in easy repose; but at night it flapped about in its place of confinement, and vainly sought hard to force a passage through the bars.

In the spring of 1859, my friend Mr. Holt, at Foochow, sent me two specimens of the same species from that place, but they appeared somewhat larger in size than the present one.

* Probably *Scops lempiji* (Horsf.), but rather dark in plumage.—P. L. S.

1867
409 Length $8\frac{1}{2}$, wing 7, tail $3\frac{6}{10}$ in. Bill pale flesh-grey, with a pale yellowish rim to the mandibles. Eyes very large, about $\frac{8}{10}$ in. in diameter; iris golden burnt-sienna, but so narrow that this colour is seldom visible, the immense pupil filling nearly all the space between the lids. Skin round the eye madder-brown. Ear-conch very large and oval, nearly $\frac{6}{8}$ in. in length by about $\frac{4}{8}$ in width, the lunar-shaped orifice occupying about one-third of the oval on the part distant from the eye; colour of the conch-rim yellowish, inside light blue-grey. Legs feathered to the end of tarsus. Toes naked, light brownish flesh-colour; claws light brownish grey, with blackish tips.

There were numerous eggs in the ovary; oviduct folded zig-zag, semitransparent, and about 4 inches in length, terminating in a distinct cloaca. Proventriculus granulated, somewhat enlarging towards the gizzard, which was flabby and oval, about $\frac{1}{2}$ in. in length by $1\frac{3}{8}$ in breadth, lined inside with a fixed rugose cuticle of a yellow colour. The cæca were long and bulging at their ends, the left longer than the right; but unfortunately I have lost the measurements of these parts.

1863
250 11. CAPRIMULGUS — ?

Probably the same species as that procured at Amoy. I did not obtain a specimen. I saw a pair in March, gamboling about the top of Monte Guya, in Macao, just after the sun had set. Mr. Bowring informed me that in the fall of the year they occurred abundantly in Hongkong, and might be seen in numbers every evening hawking after insects in the valley.

12. CAPRIMULGUS — ?

Our second species, with naked tarsus*. One was shot at Stanley, Hongkong, which was shown to me.

13. CYPSELUS (AFFINIS, J. E. Gray) *sulfureolus* Blyth 1863 254

I saw a small party of these one afternoon at Hongkong; but they do not appear to be permanent residents at any of the three places, as at Amoy.

14. HIRUNDO GUTTURALIS, Scop.

A few arrived in February; but in March they were to be

* This will probably be a *Lyncornis*. *L. cerviniceps*, Gould, is said to be from China.—P. L. S.

found everywhere, and soon commenced building-operations. It is the only and prevailing species. This bird has only *one* small cæcum.

15. EURYSTOMUS ORIENTALIS (Linn.). Cantonese, "*Leuh-ko-tsoey*."

I had the pleasure of meeting a pair of these birds at Whampoa (the anchorage of Canton). While wandering under a group of lofty pines, I saw a bird sitting on a branch with head and body erect, while the tail and abdomen, from the shortness of its legs, seemed to lie along the branch. The red bill and brilliant green and blue plumage soon showed me what it was, as it flitted with quick and smooth flight into the open. It was presently joined by its mate, and they kept flying about, now resting on a thick bough, now again on the wing, circling round the clump of trees. They uttered occasionally a note not unlike the "*quack*" of our Goatsucker, which bird it also often resembled in flight, and in its habit of sitting for the most part along a branch instead of across it. They were rather shy of approach; so I had to take them on the wing, and was fortunate enough to secure the pair.

The male was larger than the female, and perhaps a little more brilliant in tints. The gizzard was oval, $1\frac{1}{2}$ in. long, $1\frac{1}{8}$ broad, and $\frac{7}{8}$ thick, slightly muscular, lined with a flesh-yellow moveable cuticle much wrinkled with rugæ, and containing insects—chiefly beetles and large bugs. Intestines somewhat fleshy, 19 in. long, and varying in thickness from $\frac{3}{8}$ to $\frac{1}{2}$ in. Cæca $1\frac{1}{2}$ in. from anus; left $2\frac{3}{8}$, right $\frac{7}{8}$ in. in length, both bulging into black sacs at the apical third of their length.

16. HALCYON SMYRNENSIS (Linn.). Turquoise Kingfisher. Cantonese, "*Fe-tsoey*."

Common.

17. ALCEDO BENGALENSIS, Gmel. Cantonese, "*Tow-yü-long*."

Common.

18. CERYLE RUDIS (Linn.). Cantonese, "*Pun-tin-teo*."

Common.

19. ORTHOTOMUS PHYLLORAPHEUS, Swinh.

Abundant everywhere.

20. PRINIA SONITANS.

21. DRYMOICA EXTENSICAUDA.

22. CISTICOLA TINTINNABULANS.

23. ACROCEPHALUS MAGNIROSTRIS.

} All abundant, and evidently spending the summer in the south.

24. LUSCINIOPSIS CANTURIANS.

1873 This interesting species of Warbler I first met with in Formosa during March 1855, when I was much struck by the resemblance of its habits to those of the White-throat (*Curruca cinerea*). I have since met with it at Amoy, but I think merely as a straggler. At Shanghai it was abundant, as also at Hongkong and Macao. In the last two places nearly every hedge or cluster of bushes had its *L. canturians*, creeping about unseen, and trolling out its abrupt song. When approached from the midst of its leafy retreat, it gives its alarm-note, consisting of a harsh “charr”; and if hard-pressed, quietly slips out the other side of the bush and flits to a further cover.

Bill wood-brown, with the edge of the upper mandible and the whole of the lower pale flesh-colour; inside of mouth chrome-yellow. Iris hazel. Legs pale brownish flesh-colour; claws wood-brown, paling on the soles.

25. LOCUSTELLA RUBESCENS, Blyth, J. A. S. B. xiv. p. 582 (?).

A Grasshopper-Lark alighted on the deck of the “White Cloud” on our way down the Canton River. It hopped into the saloon close to my feet, and I had the full opportunity of determining its species. It was evidently the same as that once procured at Amoy. I tried to secure it, but there were too many open windows in the saloon.

26. PHYLLOSCOPUS FUSCATUS, Blyth.

This little fellow I often observed, and feel sure that some at least nest near Canton.

27. REGULOIDES PROREGULUS (Pall.).

Very abundant in the fir-trees about Hongkong during February and March.

28. *REGULOIDES CHLORONOTUS*, Hodgs.

I watched for some time several of the former and one of this species of *Reguloides* pursuing a swarm of gnats in a small pine-plantation at Hongkong. The two birds resembled each other a good deal, and at a distance were not distinguishable; but as they were much busied with their occupation, I approached within a few paces. In the midst of their pursuit they would frequently give utterance to the melancholy protracted note "sweet," somewhat sharply emitted. But the *R. chloronotus* at times stopped, and, ruffling his feathers, struck up a little musical ditty not unlike that of the Willow-Wren (*Sylvia trochilus*). I could observe no difference in the common note of the two birds. The abundance of food in this particular spot no doubt was the cause of the large numbers of these birds to be found there; for on ordinary occasions you rarely meet with more than one of the *R. proregulus* at a time, or a pair of the *R. chloronotus*.

29. *COPSYCHUS SAULARIS* (Linn.). Cantonese, "*Chuy-se-tsa*." Common at Canton and Macao.

30. *PRATINCOLA INDICA*, Blyth.

Common. Seen in Hongkong as late as March.

31. *RUTICILLA AUROREA*, Pall.

A few seen.

32. *RUTICILLA*, sp. nov. ?

I mentioned in my "Ornithology of Amoy" the fact of a second species of *Ruticilla* occurring at times in that place. In Hongkong I had the good fortune to meet with several of them. For a few days in the first week of March they were pretty abundant in the hills around the valley; but after that they were not seen, so that they were evidently on their migrations. I procured two pairs, which I forward for Mr. Sclater's examination*.

In fresh examples the bill and legs were black in both sexes; the iris deep blackish brown. The inside of the mouth was blackish flesh-colour in the male, and pale flesh-colour in the female. The tongue was ciliated at the end.

* These specimens are scarcely distinguishable from *Pratincola ferrea* (Hodgs.) of Upper India. I do not consider them different.—P. L. S.

These birds were fond of perching on the tops of bushes, where they would stand in very upright positions, often darting into the air to seize an insect, or to take up some worm or beetle from the ground. Their actions were all quick, and almost instantaneous. The tail was rarely moved, and then up and down slowly, or occasionally thrown up with Robin-like motion. This simple fact I think is sufficient to show that this species is not a typical Redstart, though it assimilates to that genus in the red tail and brown plumage of the female. The thick bill and grey plumage of the male, however, would perhaps show its tendency to the *Saxicolæ*. Its ordinary note is a subdued kind of rattling noise; but I have heard one, that stood still for several minutes at a time, keep on emitting at intervals a loud sharp note approaching to the syllable "pew."

33. LARVIVORA — ? — *

I send a wretched specimen of this bird, the only one I could procure. I have never met with it anywhere but at Macao, where it is not uncommon in wooded spots, hopping about on the ground amongst the undergrowth, and hence very difficult to shoot. When I first heard the note, I could scarcely believe it to be that of a bird, so like was it to the single chirp of the grasshopper; but, creeping on my hands and knees into the thicket, I got a view of the little fellow hopping about, and looking much like a Robin. He would sometimes shake his tail up and down; at others he would throw it up, expanding and closing it. When two of them came together, the sibilant note was repeated more hurriedly and loudly, and then much resembled the chirrup of a shrew mouse.

Bill leaden brown, paler on the edges. Inside of mouth pale flesh-yellow. Legs and claws pale flesh-colour. Iris deep brown.

34. PARUS MINOR, Temm. Cantonese, "*Pak-pay shew-low*."

Common everywhere; but the individuals appear to be somewhat larger than those at Amoy, and are in most cases *quite* grey on the back, a few only having a greenish-yellow tinge. I can

* This specimen appears to me to be a young bird of *Erythacus akahige* (Temm.), Fauna Japon. pl. 21 b; and Mr. Gould is of the same opinion.—P. L. S.

see no further difference to justify a separation ; but there seems a strong tendency towards *Parus cinereus* of Java.

35. ZOSTEROPS (JAPONICUS, Temm.) Cantonese, "Sheong-shee."

An abundant resident at Hongkong, where it may constantly be seen, roaming from tree to tree along the roads in small parties. Its well-blended tints of yellow and green, and the snow-white ring that encircles its sharp black eyes, may be seen to advantage by the observer that stands under the tree whereon these sprightly little fellows are exploring the twigs and leaves for small insects. On the 2nd of April I had the good fortune to discover its nest at the end of a bough of a large-leaved tree. It was attached to several leaf-stalks about 8 feet from the ground, and might at first sight have been mistaken for some insect's nest. It consisted of a small cup, composed of delicate grasses, spider's-web, and moss, and resembled much the nest of a Humming-bird. This pretty little structure contained two clear white eggs, one of which was slightly punctured. The nest and eggs I enclose to Mr. Selater.

36. MOTACILLA BOARULA, Linn.

I frequently saw this bird, and from meeting individuals with food in the mouth, I feel sure they breed in Hongkong. A male and female, procured in summer plumage, I transmit for comparison with the European bird*.

37. MOTACILLA LUZONIENSIS, Scop.

This bird was pretty abundant in February ; and in March I witnessed the assembling of immense flocks on the tops of the houses, evidently preparing for migrating. A few weeks later they had all gone.

38. MOTACILLA OCULARIS, Swinh.

A resident species. I enclose a male in complete summer plumage for comparison with the Indian species of the Pied Wagtail group. It greatly resembles *M. lugubris*, but the grey back in summer is a sure distinction.

* These examples do not appear to differ from the European *M. boarula*.
—P. L. S.

39. BUDYTES FLAVA, Linn.?

Several of these were feeding in some freshly-ploughed fields at Macao. I could only secure one, and am still in great doubt as to the exact species to which it belongs.

40. ANTHUS THERMOPHILUS, Hodgs.

Very abundant.

41. ANTHUS AGILIS, Sykes.

Numbers of this lively species are constantly to be met with among the grass and underwood beneath the small pine-trees at Hongkong. As you stroll through a plantation of these firs, the little fellows spring up with a note "*see*" (strongly sibilant), and with a curved flight alight on the branches above, on which they walk up and down, often uttering their note and shaking the tail. Each step you take puts up one at least, and as soon as you have passed, they drop quietly on to the ground behind you, and resume their pursuit of food.

42. ANTHUS RICHARDI, Vieill.

A few spend the summer in the south.

43. MYIOPHONUS CÆRULEUS (Scop.).

In the solitudes of the rocky ravines at Hongkong this bird may often be seen. It is very shy, and loves to stand for hours in the cavernous retreats afforded by the large black rocks that lie in massive confusion along the gullies or water-courses on the hill-sides. If you wish to see the bird, you have only to go to some solitary part of the valley, and, seating yourself on a rock, keep quite still for a few minutes. You are sure soon to see a Cavern-bird make his appearance on a rock near you. He at once spies you, and, flying off to a safer distance, appears to advantage on a neighbouring boulder. See! he runs up it; and, leaning his body forward on his long black legs, he keeps raising and depressing his tail, at the same time opening and shutting it in a shuffling manner. He then darts, with a single sharp note approaching a scream, among the leaves of a bush, the deep purple and blue of his plumage glistening in the sunlight. He has seized a caterpillar, and returns with it in his bill to the rock, whence he eyes the intruder on his solitude, while he beats and

devours his capture. He is then lost to view beneath the bushes under which he has just flown to search for earth-grubs. You watch on. Presently you see him emerge some distance up the hill, and darting with a straight flight, and screaming along the rocks, he disappears among them, where

“Speluncaque tegunt, et saxea procubat umbra.”

44. *GEOCICHLA*, n. sp.

The only specimen of this bird met with was at Whampoa, on the 18th of April. It was feeding on the ground, and on being disturbed, flew up to a tree with undulating flight, looking much like a *Campephaga*. The bill and legs were black; iris dark brown. General plumage smoke-grey, with a white belly and a distinct white eyebrow. I send the bird for Mr. Selater's inspection*.

Gizzard heart-shaped, $\frac{7}{8}$ in. long by $\frac{5}{12}$ deep, somewhat muscular, with a moveable yellowish rugose epithelium, containing the remains of insects. Cæca $\frac{1}{2}$ in. from the anus; right one $\frac{1}{2}$ in. long, left $\frac{1\frac{1}{2}}{5}$.

45. *TURDUS DAULIAS*, Temm.

46. *TURDUS PALLENS*, Pallas.

47. *TURDUS CHRYSOLAUS*, Temm.

48. *TURDUS CARDIS*, Temm.

These four Thrushes were seen in February and March, and appeared to be merely passengers.

49. *TURDUS* — ? *hortulorum* *Sclater* 1866, 196

A species of Redwing, with grey-olive back in the male and orange-tinted flanks. Abundant, especially in Camoëns Garden, Macao, where they were nesting. I have occasionally met with them at Amoy; but, unfortunately, during my ramble in the south I managed to procure only a female. I enclose the bird for Mr. Selater's inspection†.

* This bird is *Turdus sibiricus*, Gm., in nearly adult male plumage.—P. L. S.

† Evidently the young of the preceding (*Turdus cardis*), in the stage figured in the 'Fauna Japonica,' tab. 30. It agrees in structure com-

50. *TURDUS MANDARINUS*, Bp. Cantonese, "Woo-yay."

An abundant resident. Its sweet melody enlivens all the gardens. The male and female greatly assimilate, and in this respect differ much from the European Blackbird. Both sexes have yellow bills in the summer ; but the plumage of the female is browner than that of the male. It builds chiefly on the boughs of the Banyan (*Ficus nitida*), making a nest scarcely distinguishable in aspect from that of the *T. merula*.

51. *PETROCOSYPHUS MANILLENSIS* (Bodd.).

Numerous about the rocky hills.

52. *GARRULAX PERSPICILLATUS* (Gmel.). Cantonese, "Sampalow."

Frequents clumps of bamboos, where it chatters and makes a great noise, often bursting out into the loud notes "teo-teo," which appear to be the call from one to the other, and can be heard at a long distance. It is a great enemy to the eggs and young of small birds, and in habits approaches somewhat the Jays.

53. *LEUCODIOPTRON CANORUM* (Linn.).

This is the "*Hwa-mei*" or Song-Thrush of the Chinese. Mr. Blyth tells me that the true *Garrulax sinensis*, Linn., is from the Tenasserim Provinces. A few "*Hwa-meis*" may constantly be heard singing among the bushes on the almost precipitous sides of the lofty hills of Hongkong.

54. *ORIOLOUS CHINENSIS*, Linn. (*O. acrorhynchus*, Vig.) Cantonese, "Wong-gang."

This Oriole occurred plenteously at Canton, and, from comparison of specimens, I find that both sexes vary considerably in size, in the height of the culmen of the bill, and in the extent of the yellow and black on the wings and tail, hence affording satisfactory proof of the identity of the two species, *O. sinensis* and *O. acrorhynchus*. I send specimens of both the supposed species for comparison*.

pletely with a male *Turdus cardis* in Mr. Gould's collection. It will be interesting to know if these birds really breed in this plumage.—P. L. S.

* Mr. Swinhoe's ten specimens all appear to be referable to one species—without doubt the true *O. chinensis*. But it is still necessary to examine

55. *PYCNONOTUS OCCIPITALIS*, Temm. Cantonese, "*Pak-taou long*."

An abundant resident.

56. *PYCNONOTUS CHRYSORRHOIDES* (Lafr.).

These are of a more roving disposition than the foregoing, and may often be met with in small parties on the hills, flying one after another from bush to bush. They have a loud chattering note, uttered while roving about; but the male at times, seated quietly on a branch, gives vent to a succession of sweet notes, some of which are very rich and full. I observed numbers of these Bulbuls, as well as the preceding, on the Tallow-tree (*Stillingia sebifera*), feeding on its ripe berries.

57. *PYCNONOTUS JOCOSUS* (Linn.).

This is evidently the same bird as that found in Bengal, and is described as *Turdus sinensis* in Shaw's 'Zoology,' from a Chinese drawing. It is not found in either Hongkong or Macao, but is very abundant in the neighbourhood of Canton, where numbers of them were to be seen in April, springing about over the large red flowers of the gigantic leafless *Bombax malabaricum*. They were at once to be distinguished by their peculiar voices; but their lofty curled and pointed crests gave them a very marked appearance.

58. *TCHITREA PRINCIPALIS* (Temm.).

This bird I cannot help thinking is not *T. principalis*, but a distinct species*. A female that I sent home on a former occasion was pronounced by Mr. G. R. Gray to belong to the Japanese species, but the females in all the species I have seen assimilate in a most remarkable manner. The male I procured in Hongkong I enclose. This is the fourth male I have seen, all resembling one another, and differing from the description in the 'Fauna Japonica.' The male in that work is thus described:—
'Les plumes du ventre et les couvertures inférieures de la queue

examples from the Philippines, as the bird described as *O. acrorhynchus* by Vigors (P.Z.S. 1831, p. 97) was from that locality.—P. L. S.

* I consider this to be the true *T. principalis*, but I have no Japanese specimens for comparison.—P. L. S.

sont blanchâtres, mais elles passent au noirâtre vers leur base. Toutes les autres parties de l'oiseau sont d'un noir de velours profond à reflets bleuâtres, et passant au noir-violet sur le dos et les ailes"—whereas the back of our bird is of a burnished pink-purple.

Iris dark blackish brown. Eye-skin and bill fine cobalt-blue, the latter with black tip. Legs violet-blue, with blackish claws. Gizzard roundish and somewhat flattened, $\frac{1}{2}$ in. in diameter, with a fixed rugose cuticle; containing remains of diptera and coleoptera. Intestine $6\frac{1}{2}$ in. in length; right cæcum $\frac{7}{8}$ in. from anus, the left $\frac{1}{10}$ higher, both about $\frac{1}{10}$ in. long and adnate, of an oval shape.

It is a grand sight to see this bird sitting upright on a branch, with its two tail-streamers hanging down, and quivering with the slightest breeze; but to see it spring on wing, and mark the whirling motion of the two long feathers, now coming together, now separating widely, and spinning in different directions as the bird skirmishes in the air, is truly a magnificent sight. They seldom dart out far on the wing, but keep a good deal within the limits of a large tree's branches. I have watched a pair of females engaged in the capture of insects. They stood very upright on the branch, with the tail almost horizontal, and leaping a little way into the air, would catch the fly and skip with it to another branch, seldom returning to the one they started from.

The yearling has the bill and legs brownish, the blue of the eye-skin being more or less sullied. I am told that white varieties occur near Canton.

59. *HEMICHELIDON LATIROSTRIS* (Raffles)*.

Very common.

60. *HEMICHELIDON FERRUGINEA*, Hodgson†.

I only saw this once. I enclose the specimen for Mr. Sclater's examination.

* This seems to be *Muscapa cinereo-alba* (Temm.) of the 'Fauna Japonica.'—P. L. S.

† Agrees well with Indian examples of this bird in Mr. Gould's collection.—P. L. S.

61. *XANTHOPYGIA NARCISSINA* (Temm.). Cantonese, "*Tsoey fa chay*."

Common about Canton. They often fly down to the ground or skim along its surface in the pursuit of an insect. In the various evolutions of flight, the bright golden colour of the rump and throat shows to advantage. I procured a female for the first time, and was surprised to find how much it differs from the male.

As the male only is figured by Temminck, I here give a sketch of the female :—

Bill, upper mandible black, lower bluish grey. Legs pale violet-grey. Iris dark. Inside of mouth pale yellowish flesh-colour. Upper parts obscure olive-green, with a blackish olive patch on each cheek. Wings and tail hair-brown, the former margined with paler. Some white feathers occur on the shoulder ; and the rump-feathers have whitish bases. Throat and indistinct eye-streak orange-yellow. Breast dingy olive-yellow. The remaining under-parts washed with ochreous.

Length 5 in., expanse $7\frac{1}{2}$, wing $2\frac{1}{8}$, tail 2.

62. *NILTAVA CYANOMELÆNA*, Temm. Cantonese, "*Moey fa tsoey*."

A few of these occurred in Hongkong in April, but in Canton for the first fortnight in that month they were remarkably abundant near the city walls. Almost every mound or grave-stone had its Blue Bird standing erect, on the look-out for the passing insect. I was much struck with the appearance of a brown bird, of similar habits and seen in similar positions. This I found to be the female of the blue,—the one I shot having an almost uniform olive-brown plumage. But a single blue feather on the crown of the head convinced me of the identity of the birds, before I had the opportunity of determining the sexes by dissection.

As the male only has been described in the 'Fauna Japonica,' I here extract from my journal the description of the female :—

Bill blackish brown. Legs greyish brown. Iris dark brown. Inside of mouth yellowish flesh-colour. Upper parts olive-brown ; rump redder ; tail fringed with reddish brown. Wings

brown, margined with reddish olive. Throat buff. Breast and axillæ olive, tinted with buff. Belly and vent white, touched with the same colour.

Length 6 in., wing $3\frac{6}{8}$, expanse 9, tail $2\frac{1}{2}$.

Testicles in the male small and *black*. Gizzard roundish, $\frac{5}{8}$ in. in diameter, lined inside with a moveable rugose cuticle of an ochreous colour, and containing for the most part small beetles, most of which were unbroken. Intestines thick and fragile, with *no cæca*.

63. CAMPEPHAGA — ?

This bird is occasionally seen at Amoy. I first met with it at Macao on the 21st of March, where its loud notes, repeated at intervals, attracted my attention. It was singing in a bush, but on being disturbed flew up to the branch of a tree, whence it continued to pour forth its notes. At Canton it was not uncommon. The immature bird is indistinctly barred on the under parts, the tints are much lighter, and a broad white bar occurs across the wing, visible when the bird flies. In this last characteristic of the immature dress this species approaches the *Pericrocoti*, which in most cases have a white under-wing band.

Mr. Blyth ignores the name which I have applied to it. I must therefore leave the identification of the species to Mr. Sclater; and I think it is very probable that it will prove new*.

64. PERICROCOTUS CINEREUS (Lafr.).

This bird visited Hongkong in small flocks during the first week in April, when I was enabled to procure a nice series of males. A little later in the same month I saw a small party of them at Canton; but I am convinced that they were migrating, and merely passing over.

65. PERICROCOTUS CANTONENSIS, n. sp.

1870 2494 A smaller species than the preceding, and evidently resident at Canton. I send a male and female for Mr. Sclater to examine

* This bird is a close ally of *Volvocivora lugubris* (Sund.) of India and *V. fimbriata* (Temm.) of Java, which, I suspect, is distinct from the Indian bird. The single specimen sent appears to agree best with the description of *V. melanoptera* (*Campephaga melanoptera*, Blyth, J. A. S. B. xv. p. 307), from Arracan.

and describe, and merely confine myself to the notes in my journal.

Length $7\frac{2}{8}$ in.; wing $2\frac{1}{2}$, tail $3\frac{6}{8}$, expanse $9\frac{2}{8}$. Bill and legs black. Inside of mouth flesh-colour. Eyes hazel. Gizzard roundish, muscular, and much flattened, lined with an adherent rugose cuticle of a brownish-yellow colour; containing remains of caterpillars. Testicles white, and elongo-ovate, $\frac{5}{12}$ in. long; the left one longer than the right. Intestine rather thin; cæca $\frac{1}{4}$ in. from the anus, about $\frac{1}{12}$ in. long*.

66. *DICRURUS MACROCERCUS*, Vieill.

This bird occurs, but not abundantly. Formosa is the only place where I have seen it in any abundance.

67. *LANIUS SCHACH*, Gm. (Sparrow King.) Cantonese, "*Ma chow wong*."

Very numerous everywhere. The bird in the south is smaller, and less rufous on the rump, than that at Amoy, and I dare say goes on decreasing in size towards the Straits, whence I have seen very diminutive varieties.

68. *LANIUS LUCIONENSIS*, Linn.

Passing over. I observed two one morning at Hongkong.

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69. *CORVUS PECTORALIS*, Gould.

Common. The black species which occurs at Swatow and Foochow, and which Mr. Blyth tells me is *C. sinensis* of Gould, I did not see once at Canton.

70. *PICA SERICEA*, Gould.

Common everywhere.

71. *UROCISSA SINENSIS* (Linn.).

These handsome birds are often to be seen about the woods at Hongkong. You see a long-tailed form flying over the low trees with a direct flight, executed by short constant flaps, like that of a Magpie, the tail being held in nearly the same horizontal line as the body. The first disappears into a thick leafy

* This is certainly distinct from *P. cinereus*; but I rather doubt Mr. Swinhoe's male bird being in full plumage. The female shows a distinct yellowish bar on the wing. This ought to be red in the male by analogy, but is white. I should like to examine further specimens before describing it.—P. L. S.

tree, and is followed by a second, then a third and fourth, and sometimes more. Presently one shows himself on an exposed branch above, stretching out his red-billed head and whisking impatiently his two white-tipped tail-streamers. He sees you watching him, and at once sets up a cry of "*pink-pink-pink*," followed by a loud chatter, in which his comrades join, and you catch glimpses of violet and blue as they hasten from one tree to another in a contrary direction, until the distant sound of the "*pink-pink*" note tells your ear that the Redlegs are far through the woods.

72. *ACRIDOTHERES CRISTATELLUS* (Linn.). Cantonese, "*Lent ko*."

Very common. I dissected a female. Gizzard oval, about 1 in. long, $\frac{3}{4}$ broad, and $\frac{1}{2}$ deep; somewhat muscular, containing chiefly coleoptera; the inside was lined with a moveable cuticle, longitudinally as well as transversely furrowed. Cæca: left $\frac{5}{10}$ in., right $\frac{4}{10}$ in. in length. Around the intestines occurred several tape-worms (*Tenia*), the longest $1\frac{1}{4}$ inch, and about $\frac{1}{8}$ in. broad; whitish, and of nearly the same width to the end of the tail. The head was leech-like, and kept changing its form by its expansive and retractile power, at one time looking like a ball, then lengthening into a spatula,—then, the lip being drawn back, resembling a thistle-head. These curious little creatures lived some hours in water.

73. *GRACUPICA NIGRICOLLIS* (Paykull).

Somewhat rarer here than at Amoy.

74. *TEMENUCHUS TURDIFORMIS* (Wagler). Cantonese, "*Fooy gang*."

I first observed it in April, when large flocks of them arrived at Canton, and were to be seen on almost every tree. Is it found in summer also in Pegu? It is abundant at Amoy in summer, but its migrations do not extend so far northward as Foochow.

75. *TEMENUCHUS SERICEUS* (Lath.).

76. *TEMENUCHUS CINERACEUS* (Temm.).

I observed flocks of both these on the main opposite Hong-kong during February.

77. COCCOTHAUSTES MELANURUS (Gmel.).

Very abundant about Canton; evidently breeds there in great numbers.

78. MUNIA ^{minor} MALACCA (Linn.) = *Hopelia* n. sp. 1863
Flocks of these were observed at Macao and Whampoa. b379+380

79. MUNIA ^{minor = M. aculeicauda Hodg.} MINIMA (Lath.) Cantonese, "Wo-kook." 1863
b379

Very abundant. Most of the court-yards throughout the city of Canton have this bird nesting in their trees. The little fellows whisk about their pointed tails most vigorously, and utter their call-trill when you draw near their nesting site. The nest is a round domed construction of grasses and roots, not unlike that of a Wren, and generally contains three white eggs.

80. MUNIA RUBRONIGRA (Hodgs.).

I almost doubt whether this is a Chinese bird, as I have never yet met with it in a wild state. It is occasionally to be seen in cages, but I think comes from the Straits.

81. MUNIA ORYZIVORA (Linn.).

Wild at Hongkong during the early spring.

82. LIGURINUS SINICUS (Linn.). Cantonese, "Kum sheong shee."

Abundant.

83. PASSER MONTANUS (Linn.).

Found everywhere.

Several other Finches were offered for sale in the Canton bird-shops, all of which the dealers said came from Northern China; and this is not improbable, when we consider that such birds as *Loxia recurvirostra*, *Fringilla montifringilla*, and *Passer russatus* were among the number. They are brought down in numbers for sale by the Tien-tsin junks, that make half-yearly passages southwards. At all events, as I have never seen these birds in the open country, it is needless to swell my list with their names.

84. EMBERIZA FUCATA, Pall.

85. EMBERIZA PERSONATA, Temm.

86. EUSPIZA AUREOLA (Pall.).

} All more or less common,
and, I think, resident.

87. *EUSPIZA SULPHURATA* (Temm.).

Seen once at Hongkong.

88. *MELOPHUS LATHAMI* (Gray). The Macao Sparrow of Shaw's 'Zoology.'

In excessive numbers about Hongkong and Macao. The males are at least two years in completing their mature dress.

89. *ALAUDA CÆLIVOX*, Swinh.

Common in all open country that abounds in corn or pasture land; specially abundant near Macao.

90. *PICUS MAJOR*? Cantonese, "Shü-kai" (Tree-fowl).

This male specimen, which looks very like the European species, was brought to me alive at Canton. On a previous occasion I received a pair from Mr. Holt at Foochow. The one now enclosed to Mr. Selater measured, when fresh, $9\frac{2}{3}$ in.; wing $5\frac{1}{8}$, tail $3\frac{1}{2}$, expanse of wing $14\frac{1}{2}$. Bill along culmen $1\frac{1}{8}$ in., from point to commissure $1\frac{1}{2}$; of a deep lead-colour, lighter on the gonyes and at the base. Inside of mouth flesh-coloured. Legs and claws deep leaden. Irides brownish carmine*.

Testicles over $\frac{1}{2}$ in. long, oval, and pure white; left one rather longer. Gizzard heart-shaped, not muscular, $\frac{7}{10}$ in. long; epithelium fixed, with close longitudinal rugæ; containing remains of beetles and minute pieces of rotten wood. Intestines 10 in. long, rather thick, with no cæca.

91. *CUCULUS TENUIROSTRIS*, Gray. Cantonese, "Pun-tow-shooey."

Very common and noisy in the city of Canton.

92. *EUDYNAMYS ORIENTALIS* (Linn.). Cantonese, "To-keun."

A figure occurs in Shaw's 'Zoology,' 1815, vol. ix. pt. 1. p. 103, under the term "*Cuculus mindanensis*," which is undoubtedly the female of the Canton bird; but it is marked "male," and

* This specimen agrees well with the bird figured by Mr. Gould in his 'Birds of Asia' as *Picus cabanisi*. According to M. Malherbe, however, this species is not his *P. cabanisi*, but *P. gouldi*. See Monogr. Pict. pl. 17. p. 62; but the distinctions between *P. cabanisi*, *P. mandarinus*, and *P. gouldi*, as there given, seem rather fine. We certainly doubt the fact of three species so nearly allied occurring in one country.—P. L. S.

1869
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1870
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its locality given as the Philippines, Cape, and Coromandel coast.

The loud notes of this bird first drew my attention to it in the city of Canton. I was told that this noise-producer was called the "Summer Bird" among the European residents, from its arriving at the commencement of the hot season. Its note may be syllabled "*cō'-ō'-ah*," pronounced loudly and with stress, which it keeps on repeating, the loudness and vigour increasing every time, until the sound suddenly stops. On hearing the call, you have only to look to some well-exposed tree or branch, and you are almost sure to see the bird; but it seems to prefer the leafless top branches of the gigantic *Bombax malabaricum*, where its large black form is plainly visible, bending forward and stretching its neck while the startling notes are emitted. If approached too near, the bird flies off with a *straight* flight,—looking, however, in form much like a Drongo Shrike. One that I was watching flew off to another large tree in which there was a Magnal's nest, and close to the nest a brown bird much like himself in form. The brown bird turned out to be the female, and set up a chattering noise on the arrival of her mate. She very probably had dropped, or had come to drop, an egg into the nest; for the Magnal (*Gracupica nigricollis*) soon returned to the tree, and seeing strangers so near his abode, charged them. The Magnal, however, was defeated and driven off, and the Cuckoos remained victorious. I was fortunate enough to procure a pair, which I enclose; but the bird was by no means uncommon, for I have heard no less than *three* males calling within ear-shot of one another.

Male.—Length $15\frac{1}{4}$ in.; wing $7\frac{1}{2}$; tail $7\frac{1}{2}$, with ten feathers. Bill pale bluish grey, becoming pale yellowish towards the tip. Inside of mouth flesh-colour. Iris clear carmine. Legs lead-colour, greyish at the joints and on the soles. Whole plumage greenish black.

Female.—Length 15 in.; wing $7\frac{1}{2}$, tail $7\frac{1}{2}$, expanse $19\frac{1}{2}$. Bill pale greenish ochre, varied with brown. Inside of mouth flesh-colour. Iris reddish brown. Legs leaden blue; soles yellowish grey; claws brownish grey. Tail a good deal worn and jagged at the ends and sides of the feathers, proving to a certain degree

that it is to the round domed nests of the Magnals (*Gracupica nigricollis* and *Acridotheres cristatellus*) that this bird chiefly resorts to deposit her eggs.

Tongue fleshy, sagittate, horn-edged and rounded at the tip; basal half papillose, more conspicuously at the edge. Ear-conch moderate, nearly circular, with a lunate recess on the part furthest from the eye,—the inner edge of the ear and the outer angle of the eye being within the same plane. The eggs in the female were well developed, and some ready to drop; the oviduct was large, measuring in length $5\frac{1}{2}$ in., and in diameter $\frac{3}{8}$ in., formed of a thick white elastic membrane, folded zigzag, and enlarging into a distinct cloaca.

The male had white oval testicles, about $\frac{1}{2}$ in. long. Proventriculus granulated, and narrowing as it joins the gizzard, which is somewhat ovato-circular, $1\frac{2}{8}$ in. long, well flattened, flabby, and capable of much extension: its interior cuticle moveable, nearly smooth, and of a pinkish colour, containing wild figs. Intestine 17 in. long, varying in thickness from $\frac{2}{8}$ to $\frac{7}{8}$. Cæca given off 2 inches from the anus, the one $\frac{7}{8}$, the other 1 in. in length, very thin, and of uniform size throughout.

93. CENTROPUS — ? (*C. lignator*, nobis.)

This small species, in mature plumage, I first met with in Kelung, Formosa. One was afterwards shot at Amoy, in immature plumage; and in Hongkong I again fell in with the immature bird. Its “hoo-hoo,” with the sounds “kă-toch, katoch,” that immediately succeed, may often be heard on the bush-clad hill-sides of Hongkong. I enclose all three specimens for Mr. Sclater’s inspection, as it strikes me the species is probably new*.

Here is a note on the one procured at Hongkong:—Bill pale yellowish brown, with a tinge of pink; culmen blackish brown. Inside of mouth pale flesh-colour. Iris ochreous, and eyelid pale ochreous. Naked skin round the eye bluish. Legs a violet lead-colour, with yellowish soles and edges to scutes. Proved to be a female on dissection. Gizzard lined with a move-

* This small *Centropus* seems not different from *C. affinis*, Horsf., of Java, Malacca, and India.—P. L. S.

able cuticle, containing several large *hairy* caterpillars of a species of brown moth.

94. *CENTROPUS SINENSIS* (Steph.).

This large and handsome species, so common in Foochow, is also abundant in the south; and one seldom visits the Happy Valley without being struck by its strange "*hoo-hoo*" resounding from the hills around. It is, however, a difficult bird to get a view of, being timid, and crouching in cover when approached. Like the foregoing small species, it is upwards of *three* years attaining to mature plumage,—during that time scarcely two specimens being found with the same markings. I procured a fine female in a wood on the other side of the island, near the village of Little Hongkong, on the 3rd of April. The eggs were largely developed, and evidently within a few days of being laid. Proventriculus $1\frac{3}{8}$ in. long, narrowing immediately before the gizzard, which is circular, somewhat flattened, flabby, and thin-skinned, lined with a thin, smooth, separable cuticle, and containing the remains of grasshoppers chiefly. Intestines 32 inches long; right cæcum 4 in., left $3\frac{3}{4}$, both bulging at their extremities. Oviduct long, and folded zigzag, being formed of a broad white elastic membrane terminating at the anus.

Besides the ordinary note, this bird sometimes utters a loud chuckle somewhat like the sound produced by pouring water from a bottle.

95. *TURTUR ORIENTALIS* (Lath.).

On the way down to Hongkong, a party of friends left the steamer for an afternoon's shooting at Swatow, and among the birds brought back was one of this species. I afterwards saw a pair early in March on the main near Hongkong.

96. *TURTUR CHINENSIS* (Scop.). Cantonese, "*Pan-kaou*."

The prevailing species. *T. humilis* did not occur, which is strange, considering how abundant it is from Hongkong to Shanghai during the summer months.

97. *PHASIANUS TORQUATUS* (Gmel.).

Found in the neighbourhood, and sometimes on the island of Hongkong itself.

98. *FRANCOLINUS PERLATUS* (Gmel.).

This bird is numerous in Hongkong, inhabiting the patches of bushes and fern that so frequently occur in nooks and depressions on the hill-sides, whence it is very difficult to flush it, even with a good dog. If you mark a bird down, you are by no means sure of putting it up again. It is a solitary bird, and does not associate in coveys. In the early mornings of April, and during the greater part of the day, if cloudy, you may hear them crying to each other on the hills around that enclose the Happy Valley. One male starts the song "*ke-kai, ke-kai, ka-karr,*" another on an adjoining hill defiantly repeats the notes; a third, still further, is heard, and even a fourth, until the notes are lost as it were in a distant echo. The first bird then commences again, adding greater emphasis to the last note, and the other birds take up the song in succession as before. When heard near, these notes sound harsh to the ear; but at a distance they have a pleasant, wild effect as they sweep over the sides of the towering hills. The flesh of this Francolin is white and insipid.

99. *COTURNIX DACTYLISONANS*, Temm.

Common; but, I think, merely as a winter visitant when corn takes the place of rice in the fields. Numbers are captured and brought to market in baskets; the best males being first selected, and confined separately in straw bags, for pugilistic purposes. For the table, they sell at 4s. or 5s. the dozen; but the warlike individuals fetch 1s. or 2s. apiece.

100. *COTURNIX CHINENSIS* (Linn.).

This diminutive and prettily-marked species is found in the neighbourhood of Canton, to which city it is carried singly or in pairs, and offered for sale in cages. It is by no means common, and is much esteemed as a cage-bird.

101. *TURNIX JOUDERA*, Hodgs. ? *See 341*

1865
p. 223
This a good deal resembles the bird figured in Gray's 'Genera of Birds' with the above name, but is rather larger. You find it occasionally in the Hongkong markets mixed up with Quails, from which it is distinguished by Europeans by the name

"Button," or "Button-Quail." I have seen it occasionally in the possession of natives at Amoy.

102. *SQUATAROLA HELVETICA* (Gmel.).

Occurred during February, but not afterwards. One kept in an aviary at Amoy appears to have undergone no change in plumage as late as the end of May. Is this merely attributable to the effect of confinement on the bird's constitution; or is this race in any way separable from the European one?

103. *CHARADRIUS VIRGINICUS*, Bork. Cantonese, "*Mapaw-chuy*."

A common bird near Canton; passes the summer there. The females do not appear to undergo so complete a moult as the males.

104. *ÆGIALITES CANTIANUS* (Lath.).

Common during February. The majority migrate northwards.

105. *ÆGIALITES PUSILLUS* (Horsf.).

Common about Hongkong in the rice-fields. Many stay to breed.

106. *ÆGIALITES GEOFFROYII* (Wagl.).

A large species: shot once at Amoy. One was shown to me that had been procured from a flock on the main opposite Hongkong.

107. *ARDEA CINEREA*, Linn.

Frequently seen.

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108. *HERODIAS* (*EGRETTA*?) Cantonese, "*Pak haw*" (White Crane).

These birds are found in the neighbourhood of Canton, and are brought alive to market, where they may often be seen standing at some shop-door, the primary quills twisted together into a knot, and the eyes blindfolded by a feather passed through the underlid of each eye and tied over the head. They are called by Europeans "White Cranes." I procured a pair, which I send for Mr. Sclater's inspection*.

* They seem to be *H. intermedia* (Wagler). See, for synonyms, Blyth's Catalogue, p. 279.—P. L. S.

	Length. in.	Wing. in.	Tail. in.	Bill. in.	Tip of bill to eye-angle. in.	Naked tibia. in.	Tarsus. in.	Mid-toe : in.	its claw. in.
Male.....	37 $\frac{1}{2}$	15	6	4 $\frac{1}{2}$	5 $\frac{1}{2}$	5	6 $\frac{5}{8}$	4 $\frac{2}{8}$	$\frac{6}{8}$
Female...	35	13 $\frac{1}{2}$	3 $\frac{1}{2}$	4	4 $\frac{6}{8}$	3 $\frac{6}{8}$	5 $\frac{7}{8}$	3 $\frac{7}{8}$	$\frac{5\frac{1}{2}}{8}$

Bill blackish brown ; base of *culmen* and *gonys* brownish yellow, gradually yielding to the bright chrome of the cere, which tends to greenish in the region of the eye. Iris king's-yellow. The *tibia* of the male is madder-brown on the highest part ; but this colour, as it descends, soon yields to the blackish brown which prevails throughout the remainder of the legs and claws.

In the female the yellow on the face is paler, and the *tibia* pale flesh-brown with a green tinge, which extends as far as the upper portion of the tarsus.

109. HERODIAS GARZETTA (Linn.).

Common.

110. BUPHUS COROMANDUS (Bodd.).

Common.

111. BUTORIDES JAVANICA (Horsf.). Cantonese, “*Shuy haou haw.*”

Met with near Canton. A male specimen in fine plumage was brought to me by a Chinese. Its bill was black, with an ochreous gonys ; lore yellowish green. Iris clear yellow. Legs yellowish sea-green on the upper surface, bright orange-ochre on the soles and under surface ; claws dark brown.

112. ARDEOLA PRASINOSCELES, Swinh.

Of frequent occurrence. A male was brought to me at Canton, and I enclose it for Mr. Sclater's inspection, and for that gentleman to pronounce if he does not really think it distinct from *A. leucoptera* and *A. speciosa**. The bill of this specimen was beautifully tinted with yellow and blue. Legs a fleshy yellowish, yellower and tinted with greenish on the toes ; claws brownish.

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* I consider it to be *A. speciosa* (Horsf.). Mr. Blyth observes, in reference to this species, in a letter to Mr. Gurney, “It is curious that the Squacco Heron of Africa (chiefly), the *A. leucoptera* of India, and the *A. speciosa* of China, the Philippines, and Java, are so similar in winter dress as hardly (even if at all, with absolute certainty) to be distinguishable, yet in summer garb their colouring is most strikingly different.”

The gizzard was of moderate size, and shaped like a bottle, containing the remains of small *crustacea*. The testicles were oblongo-ovate, and measured, one 1 inch, the other $\frac{1}{2}$ inch in long diameter. Curled in the intestines was a worm-like *Ascaris*, $1\frac{1}{4}$ in. long; and from off the skin under the feathers I picked a tick (*Ixodes*), about $\frac{3}{12}$ in. in diameter, with very thin red-brown feet and white, berry-like body.

113. *ARDETTA CINNAMOMEA* (Gmel.). Cantonese, "Fawhaw."
Common.

114. *ARDETTA SINENSIS* (Gmel.). Cantonese, "Wong gawhaw."
Common.

115. *NYCTICORAX GRISEUS* (Linn.). Cantonese, "Moon-shóó haw."

This is the sacred bird of the great Honam Temple, Canton. The court-yard in front of this temple contains some venerable banyans, as well as a few towering cotton-trees (*Bombax malabaricum*). On the higher branches of the former the small flat wicker-nests of the Night-Heron may be seen in all directions, some only a foot or so from others; and the croaking and flapping and fighting that goes on overhead bears some distant resemblance to the crowded deck of an emigrant steamer on first encountering a turbid sea. The granite slabs that form the pavement beneath these trees are so bedaubed with the droppings of old and young, that permission to scrape them clean daily might prove a fine speculation for the guano-collector. The birds, from the protection afforded them, were remarkably tame, and we could stand beneath the trees and watch them without their evincing the slightest fear. This was in April. Some might be seen *sitting* on their nests, with their long legs bent under them, the weight of their bodies resting for the most part on the tarsal joint; others standing on single leg close by, with shortened neck, the beak and head occasionally moving partially round as on a pivot; others flapped to and fro, ruffling up their head-gear, and occasionally sparring together. In their various movements, the dark-green-black of the head and back, with the thin snow-white occipital streamers flowing and quivering over the latter,

gave a quaint, though not ungainly, look to the birds. From some of the nests we heard a subdued chattering like the cry of young, and it was to feed these hungry mouths that the parents were constantly leaving the trees to seek for food at all times of the day, while others were returning with supplies. As the sun set, however, they became more active. While I sat watching them from a neighbouring roof-top in the evening, numbers of them emerged from the leafy darkness, and one by one settled on the stark bare outstanding arms of the cotton-tree. After resting for a little time like gaunt spectres on the tree top, off they went, one after the other, with a "*kwa*"—seldom more than two in the same direction. As darkness set in, many returned, and the noise and hubbub from the trees rose to a fearful pitch. Until night hid them from my view, I could see the old birds going and coming, and hear the clamour of the young. What kind of nocturnal slumbers the priests enjoyed in the temple below, I never took the trouble to inquire, though I have little doubt that from constant use the noise of these *croakers* has become quite essential to their good night's rest.

Though these birds moved about very much during the day, yet it strikes me that twilight is the most active time with them, and that in most instances the departures during the day were to seek food for the newly-hatched young, which would require feeding oftener at first, and perhaps with more choice food.

I sent my man up one of the trees, whence he brought down three nests, two of which contained eggs, and the third, two young birds and one egg. Judging from their size, one of these little birds must have been born at least *three* days before the other; and on opening the egg I found a live chick inside, which would have required at least two days before it could have ventured out. The varying stages of the embryos in the other six eggs confirmed this idea. I should say the differences between them could not have been more than *six* days, and certainly not less than *three*; so that the Night-Heron must commence sitting on the first egg laid, and while engaged in its incubation, keep on laying, at fixed intervals, the other two, which form the complement.

In the smaller chick procured the eye was just opened, and of

no determined colour. The bill and lore were of a yellowish flesh-colour, very pale, and tinged with blue. The legs of a similar colour, with pale claws. The head and back were covered with a long blackish down, and the rest of the body with more or less whitish down, somewhat resembling sheep's wool. The black down on the head was drawn out into long white tufts, which stood out from the head like a crown of thick threads.

In the larger chick, the eye was of a pale sea-green; the lore and bill were tinged with yellowish green. The long down of the head had opened out into filamentous ends. The legs were bluish sea-green above, and sienna-yellow beneath. The bare skin of the round projecting belly was sea-green, as also the dorsal skin. The colour of the down was light purplish grey, tipped with white on the crown, and giving place to white on the flanks and belly. The cry it uttered was a weak imitation of the old bird's croak.

The immature plumage of the yearling appears to undergo little change until the second winter, or until the bird is over two years old. One of the nests taken was covered by a bird in this first plumage, and the eggs were found to be narrower and of a darker blue than those of the mature bird. An individual in immature plumage was brought to me by a native, and the development of the testicles was proof positive that the bird in this plumage bred. It would be curious to inquire whether those in the mature plumage pair with those in the immature. I have certainly seen them together, but never ascertained whether two such owned the same nest.

Immature bird, ♂.—Iris reddish yellow or burnt sienna. Lore pale yellowish green, bluish towards the bill. Upper mandible and apical third of lower black; gonys, basal two-thirds of lower, and a line just above the edge of the upper mandible for two-thirds towards the base light yellowish green. Legs yellowish green, with pale brown claws.

Mature bird, ♀.—Lore bluish grey, with a slight tinge of yellow; bill black. Legs bright sienna-yellow, with a mixture of ochre; claws brownish black. Iris dark crimson.

A number of *Ascarides* were found in and about the intestines of this individual. They were of a yellowish flesh-colour, pointed at both ends, the longest measuring $3\frac{1}{2}$ inches.

Besides the colony of Night-Herons at Honam, there is another at the Old Man's Home, where a large pond is enclosed by a hedge of tall bushes and shrubs, and beyond this is a high wall all round. Among these bushes the Night-Herons muster in countless numbers, placing their nests on every suitable branch, though often only a few feet from the ground. They are held sacred by the priests in the adjoining temple, and no one is allowed to kill or disturb them.

116. *SCOLOPAX RUSTICOLA*, Linn.

Abundant during winter.

117. *GALLINAGO UNICLAVA*, Hodgs. 1843 p 415

Perhaps commoner than the succeeding species in winter, but in summer nearly all retire. Among a number of Snipes shot in May, only *one* of this species occurred.

118. *GALLINAGO STENURA* (Temm.). Cantonese, "*Sha-chuy*."

Great numbers stay and breed in the neighbourhood of Canton.

119. *GALLINULA CHLOROPUS* (Linn.).

Abounds in some places.

120. *GALLICREX CRISTATA* (Lath.). Cantonese, "*Can-tum*."

A male specimen procured at Canton, which I forward for Mr. Selater's examination*. Some years ago I procured one at Foochow.

Length $14\frac{1}{2}$ in., wing $8\frac{2}{3}$, tail $3\frac{1}{2}$. Bill $2\frac{1}{10}$ in., to angle $1\frac{1}{2}$; bare tibia $1\frac{1}{8}$, tarsus 3; mid-toe $3\frac{1}{8}$, its claw $\frac{6}{8}$. Bill greenish yellow, gradually yielding to vermilion as it approaches the basal *crest*, which mounts high on the forehead, and is bounded by a flesh-coloured line. Legs lead-colour, with a yellowish tinge, especially on the tarsus; claws brown. Tail consisting of ten feathers.

Gizzard oval, shaped like two shallow cups placed mouth to mouth, very muscular, $1\frac{5}{8}$ in. long, lined inside with a thick, broadly furrowed, moveable cuticle, and containing small shells, mussels, *Helices*, &c., many of which were in a pulverized state. Intestines 27 in. long: cæca situate $2\frac{7}{8}$ in. from anus; right one

* It is certainly *Gallicrex cristata*.—P. L. S.

$2\frac{1}{2}$ in. long, and bulging at the end; left one $2\frac{2}{3}$ in., and of uniform size throughout.

121. PORZANA PHENICURA (Penn.).

In a cage for sale at the city-gate. I was informed that it was caught in the neighbourhood of Canton.

122. PORZANA ERYTHROTHORAX (Temm.): Faun. Japon. pl. 78. p. 121. Cantonese, "*Lou kai*."

The pretty female of this species that I forward home was procured at Canton.

Length 8 in., wing $4\frac{1}{8}$, expanse 1. Tail consisting of ten soft feathers nearly 2 in. long. Bill: along culmen $\frac{7}{8}$, along edge of under mandible 1 in.; of a leaden blue colour, blackish on the roof; the angle of the mouth reddish. Eye-rim vermilion; iris bright indian red. Tibia naked for $\frac{7}{8}$ in., tarsus $1\frac{3}{8}$ in.; mid-toe $1\frac{1}{2}$ in., its claw $\frac{2\frac{1}{2}}{8}$. Legs bright madder-pink; soles pale dingy yellow, with sharp claws.

Tibial tendons rigid. Gizzard roundish, about $\frac{7}{8}$ in. in diameter, flattened, and somewhat muscular, lined with a moveable greenish cuticle set with broad rugæ. Cæca situate $1\frac{1}{8}$ in. from anus; left $\frac{3\frac{1}{2}}{8}$ long, right $\frac{1}{2}$, both of uniform size throughout.

It would be needless to add here a list of the marine *Scolopacidae*, *Anseridae*, &c., because it is pretty certain that all these migratory sea-birds that are found at Amoy are also found at Hongkong, and therefore reference can easily be made to my Amoy list, if the reader should wish for a notice of them. I may, however, add to the list of Ducks the Shoveller,

RHYNCHASPIS CLYPEATA (Linn.),

which was brought in great abundance to the Hongkong market amongst other Ducks.

IV.—Note on the Anatomy of *Cephalopterus penduliger*.

By T. C. EYTON, F.Z.S.

I RECEIVED only the body of this bird, taken out of one of the specimens sent home by Mr. Fraser, and described, in the 'Proceedings' of the Zoological Society, by Mr. Sclater (1860, p. 67). The greater portion of the intestines was gone.